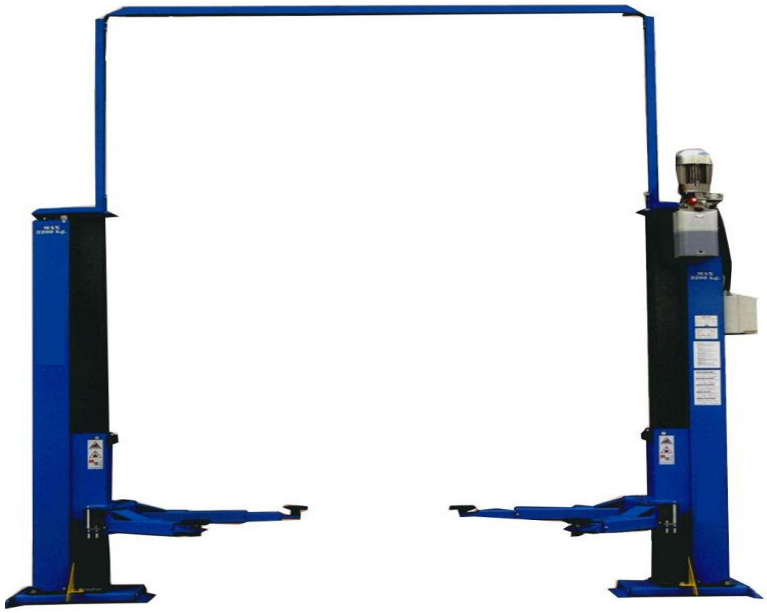
TERMOMECCANICA GL S.R.L.

DOUBLE POST

ELECTRO-HYDRAULIC LIFT

CAPACITY 3200 Kg



USER,MAINTENANCE SPARE PARTS MANUAL
CONFORMITY DIRECTIVES CE TRANSLATION OF THE ORIGINAL
63

Thank you for having chosen a vehicle lift manufactured by **Termomecanica gl**. It is the fruit of many years experience in the sector and careful planning designed to eliminate or reduce to the minimum the risk of accidents or injury to the operator.

ATTENTION!
This manual constitutes an integral part of the product.
Carefully read the warnings and instructions contained in this manual because they contain important advice about user safety and maintenance.
Keep this manual in a safe place for further consultation.

WARNING!
It is forbidden to overload the lift more than the permitted limits.
The installation, assembly and setting up must be effectuated by professionally qualified personnel.
This equipment must be used only for what it has been specifically designed for.
This lift has been designed to lift cars and four-wheeled light commercial vehicles with a maximum weight of 3200 kgs.
Any other type of use is to be considered improper and therefore forbidden.
The manufacturer declines any responsibility for any damage caused by the inobservance of these instructions.

Technical assistance:

Italy: Contact the company:
Termomeccanica gl
Via L.Giangolini n°1 - 42035 Felina(RE) - Italy
Phone ++39-05221848411- Fax ++39-05221848445

who will advise the Client of the nearest maintenance workshop.

Other countries: please contact the importing distributor of the equipment.

INDEX

CONFORMITY TO SAFETY STANDARDS

The **63** two column electro-hydraulic lift complies with the following standards:

- Directive **EC 2006/42** (Machinery Safety)
- Directive **EC 2004/108** as amended (Electromagnetic Compatibility)
- Directive **EC 2006/95** as amended (Low Voltage)

For the design and manufacture of the above equipment the following standards and specifications have been applied:

- **UNI EN-ISO 12100: 2010** – Safety of machines – General design principles – Risk assessment and risk reduction.
- **UNI EN 1493: 2010** – Vehicle lifts.
- **CEI EN 60204-1: 2010** – Safety of machinery – Electrical equipment of machines.
- **CEI EN 61000-6-4: 2007** – Electromagnetic compatibility. Generic emission standards.
- **CEI EN 61000-6-2: 2006** – Electromagnetic compatibility. Generic immunity standard.
- **UNI EN ISO 4413: 2012** – Safety of machinery – Safety requirements for fluid power systems and their components – Hydraulic standards.
- **UNI EN ISO 4414: 2012** – Safety of machinery – Safety requirements for fluid power systems and their components – Pneumatic standards.

SAFETY ADVICE

The utilisation of the equipment is allowed only by authorised, trained personnel who are in good health.
The installation of the equipment must be carried out by qualified personnel who must precisely follow the installation instructions that are reported herein.
Any tampering or modification to the equipment that has not been previously authorised by the manufacturer relieves the manufacturer of any responsibility for damage deriving or referable to the afore-mentioned acts and automatically annuls the guarantee.
The removal or tampering of safety devices will bring about a violation of the European Safety Standards.
The vehicle lift must not be activated by unauthorised personnel.
It is forbidden to climb onto or stay on the supporting mechanical organs of the lift or on the vehicle.
It is forbidden to place objects on the arms or the arm restraints of the lift.
The use of the vehicle lift is permitted only in covered places, protected from the wind and where there is no danger of explosions or fires. The use of the vehicle lift is not allowed for washing vehicles.
It is forbidden to utilise the vehicle lift for different reasons from those foreseen in this manual.
When operating the vehicle lift, utilise suitable clothing as prescribed by the law of the country in which the vehicle lift is being used.
Do not utilise the vehicle lift if the ambient temperature drops below -10° C.
Our vehicle lifts are preset for TERMOMECCANICA GL accessories.
Check that there is no danger for persons or things during lifting and lowering manoeuvres.
Turn the main switch to zero and lock it when there is an emergency intervention or during maintenance of the vehicle lift.
Turn the main switch to zero when operations are being effectuated on the raised vehicle.
Check that the removal of vehicle parts does not alter the load distribution more than the foreseeable acceptable limits.
Check the effective stability of the vehicle on the support organs as soon as the lifting of the vehicle has commenced.
Immediately stop the vehicle lift if any functioning irregularity occurs and call for authorised technical assistance.
Even small interventions on the electrical and hydraulic systems require the intervention of professionally qualified personnel.

RESIDUAL RISKS AND INDIVIDUAL PROTECTION DEVICES

Although the machine has been constructed in compliance to the safety standards in force, residual risks exist that cannot be eliminated and that are tied to the functioning of the machine.

RISKS DUE TO SUSPENDED LOADS:

The zone indicated in this manual where suspended loads will be effectuated must be highlighted by horizontal warning signs. Signs forbidding the transit of persons under the loads must be installed.

RISKS DUE TO HORIZONTALLY MOVING BODIES:

The zones where there are horizontally moving bodies must be highlighted by suitable signs.

RISKS DUE TO THE PRESENCE OF ELECTRICAL CURRENT:

The electrical system complies with all safety requirement standards.
Entry to live parts of the electrical system is forbidden and is indicated on the parts in question.
It is imperative that only professionally qualified personnel must effectuate repairs on the electrical system's components.

RISKS DUE TO THE PRESENCE OF MINERAL OILS:

See the relative advice in the chapter entitled "***MAINTENANCE***".

RISKS DUE TO THE LACK OF INFORMATION AND TRAINING:

The necessary signs are provided.
This manual is supplied to those who must assemble, adjust, utilise and repair the machine but underlining the obligation of consulting this manual before each and every operation.
Unauthorised persons are expressly forbidden to use the machine.

RISKS DUE TO NOISE:

Apart from the fulfilment relative to noise in the work environment, the noise level produced by the machine does not require any protection measures.

RISKS DUE TO FALLS:

It is expressly forbidden to climb onto the raised parts and this is clearly signed.

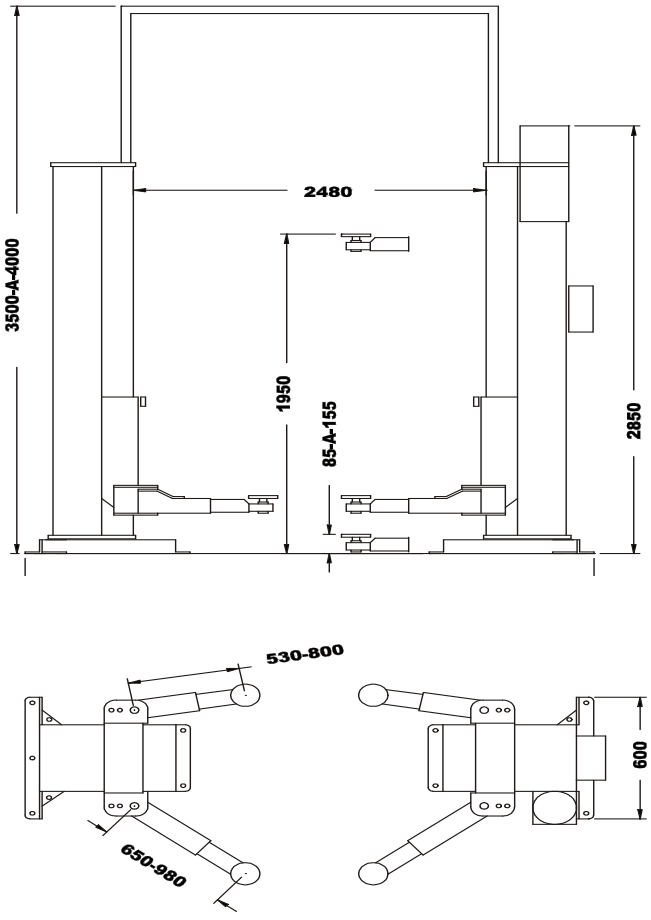
DESCRIPTION

2 column electro-hydraulic vehicle lift provided with two arm restraints operated by cylinders and chains.
Electrical, hydraulic and mechanical safety features are provided.
The motor is protected from overloading. If the motor overheats, it stops.

TECHNICAL CHARACTERISTICS AND OVERALL MEASUREMENTS

	three-phase	Monofase single-phase
Maximum load capacity	3200 Kg	3200 Kg
Electrical supply	220/380 V - 50/60Hz	220V - 50Hz
Absorbed power output	1,5 KW	2,2 KW
Weight	710 Kg	710 Kg
Lifting/lowering time	33 sec.	33 sec.
Operating pressure	200 bar	200 bar

Fig. 1 - Overall measurements



UTILISATION LIMITS

The vehicle lift is designed and constructed for lifting motor cars.
The utilisation of the machine to lift any other vehicles or objects of a different nature is strictly forbidden.

Maximum and minimum dimensions of the vehicles			
	Length	**Height**	**Width**
Minimum dimensions mm	2200	1050	1200
Maximum dimensions mm	5200	1900	1950

The machine has been designed and constructed to be utilised in covered industrial environments.

Operating environmental conditions:
Temperature range: 5° C. + 40° C.
Humidity: up to 90% at a temperature of 20° C.

ATTENTION! Any utilisation of the machine other than that foreseen and declared by the manufacturer in this user instruction manual is considered to be improper. Therefore "Termomeccanica gl" Equipment For Vehicle Workshops declines any responsibility if the operator does not adhere to that requested by the manufacturer.

TRANSPORTATION

The vehicle lifts are despatched packed in nylon kept in place by adhesive tape and fixed by straps to wooden pallets.
The solidness of the machines and their form guarantee safe transportation and storage without damage.
The weight of the machine is approximately 710 kgs.
It is advisable to be very careful during these movement operations to avoid damage and danger to the machine, persons and things.

UNPACKING

Once the machine has been unpacked, check that the instruction book and all relevant material are present. Check for visibly damaged parts.
In case of doubt, do not use the machine and contact the technical assistance department of the authorised distributor.
Completely remove the packaging material and place it in the appropriate collection area and ensure that it is not accessible to children and animals.

POSITIONING

To correctly install the machine, scrupulously follow the under-mentioned instructions:

1) Check that the support surface is completely level.
2) The vehicle lift must be installed on a completely level floor that is reinforced with an electro-welded 20 x 20 steel netting reinforcement that has a specific resistance of 35 daN/mm^2 and a minimum thickness of 150 mm.

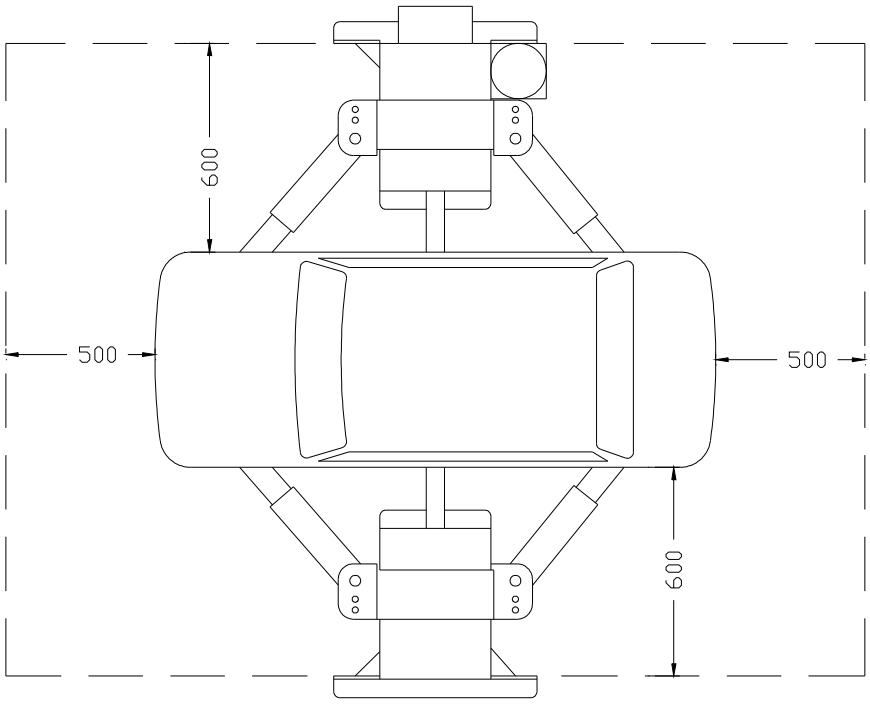
WARNING! Each column of the vehicle lift transfers a maximum load of 2,100 kgs to the floor.

3) The vehicle lift must be installed only inside a building to protect it from bad weather and in a building that is sufficiently high enough to allow lifting a vehicle to the maximum height of the lift.
4) The work environment must be well illuminated with a minimum light intensity of 50 Lux, measured from the ground and at the control panel point of the machine.
5) The connection to the electrical mains circuit must be effectuated in compliance with that reported in the paragraph "**ELECTRICAL INSTALLATION**".
6) Do not lubricate the arms of the vehicle lift..

OPERATING ZONE

The working space necessary for a correct utilisation of the machine is shown in Fig. 2.
Pay maximum attention to persons or things when moving in the operating zone around the machine. Avoid obstacles when there is a load or no load.

Fig. 2 – Operating zone layout



The operator must be capable of seeing the whole machine and the surrounding area from the control position so as to prevent non-authorised persons and objects from entering the zone that could create a danger.

SETTING UP THE MACHINE

It is necessary to take into account the following technical advice and suggestions inherent to the various types of connection before setting up the machine, especially if it is the first time that the machine is to be operated or when it has been installed in a new workplace.
In particular:

- It is not advisable to connect the machine to the electrical supply until the machine has been completely assembled and checked in accordance with the procedures foreseen.
- Check that the space around the machine is sufficient to guarantee a correct use and that there are no strangers inside the operating zone.

Z63 ASSEMBLY INSTRUCTIONS

After having unpacked the various components, check that all components are present. Follow the assembly instructions, using the various illustrations as a guideline.
The installation technician must check the foundation of the floor before commencing the assembly (Positioning – page 10).

Fig. 3 – Assembly instructions

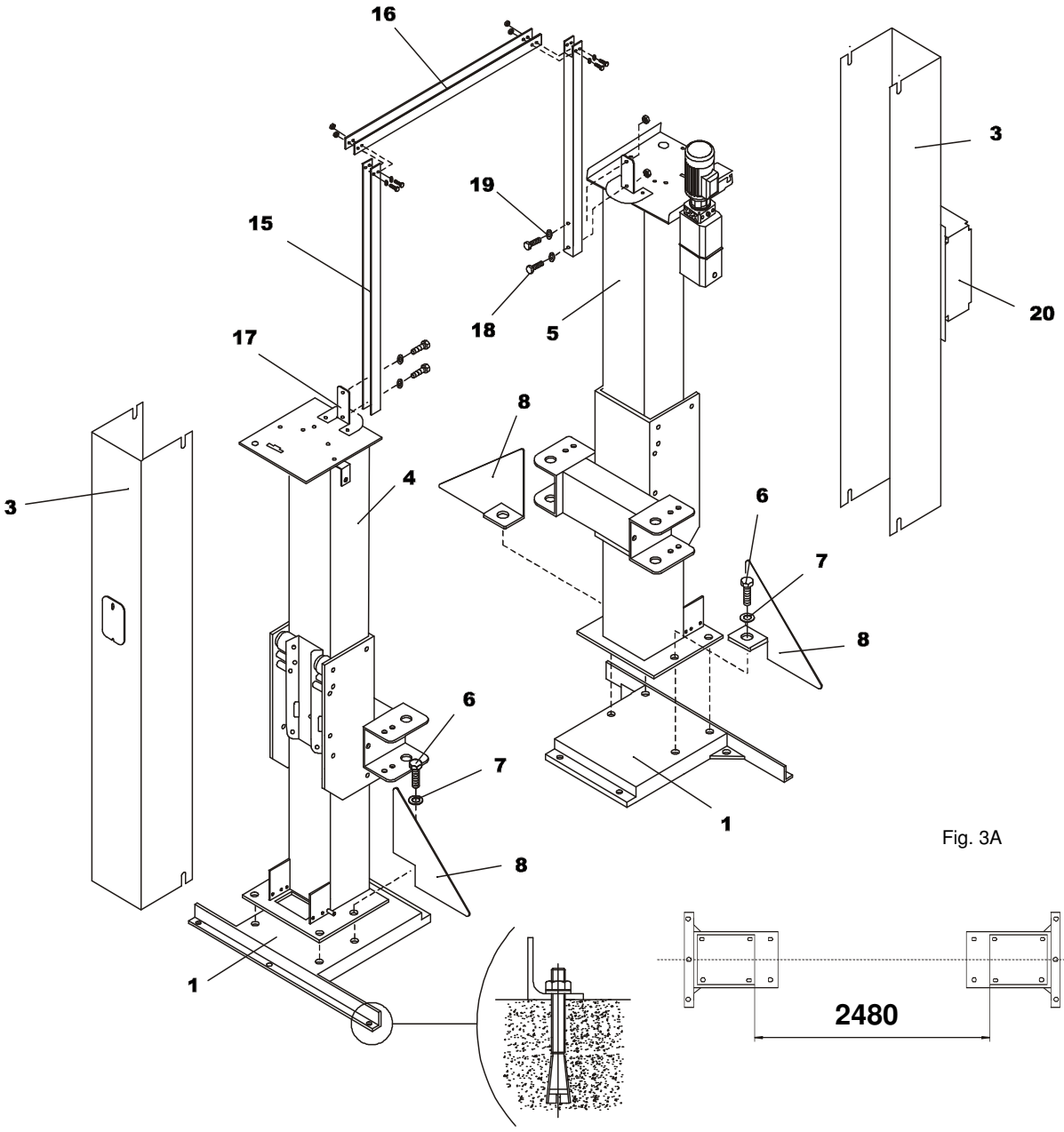
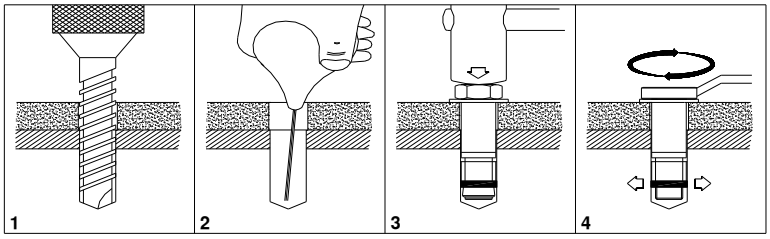


Fig. 3A

1) Connect the two bases (1) in the desired position.
2) Remove the protection (3) from the columns (4 – 5).
3) Position the columns as in Fig. 3.
4) Fix the columns to the base units using the bolts (6), the washers (7) and insert the foot protection guard (8) as shown in Fig: 3.
5) Align the two columns following the measurement in Fig. 3a.
6) Following these instructions, anchor the vehicle lift to the floor using 14 x (art. code 00624) M12 x 90 Fischer SLM12 anchor bolts or an equivalent bolt:
   - Drill a hole of 150 mm depth using a 12 mm dia. drill bit (corresponding to the diameter of the anchor bolt).
   - Clean the hole.
   - Push the anchor bolt into the hole with small blows of a hammer.
   - Screw in the anchor bolt as much as possible by hand.
   - Tighten the anchor bolt with a torque wrench calibrated to 7 daN/m (if the bolt gyrates at this value, it means that the hole is too big or the concrete of the floor is not sufficiently solid).

If in doubt about the supporting floor or the location of the vehicle lift on the supporting floor, consult the technical assistance department of the authorised distributor. When fixing the anchor bolts check that the column is absolutely perpendicular and that the tightening of the anchor bolts does not provoke a shift in the position of the column. It is necessary to check the anchor bolt fixings after approximately 10 cycles at full load. This check must also be carried out every three months.



7) Assemble the transverse bar (16) and the uprights (15) on the plate (17) utilising the bolts (18) and the washers (19).
8) House the oil and air tubes along the uprights and the transverse bar and connect them to the opposite column and to the appropriate unions.
9) Fix the tubes along the uprights utilising the appropriate bands and fixing them in the predisposed holes.
10) Effectuate the electrical connection as described in ***"ELECTRICAL CONNECTION"*** the paragraph IN PAGE 16.
11) Effectuate the connection to the compressed air system.

ATTENTION! The pneumatic system must be protected by a lubricator filter.

12) 10 litres of AGIP OSO 46 hydraulic oil or equivalent (ISO LH 46) is needed for the hydraulic circuit. Pour the oil into the tank of the hydraulic unit until it is full. The rest is poured in after having effectuated the operations in point 14.

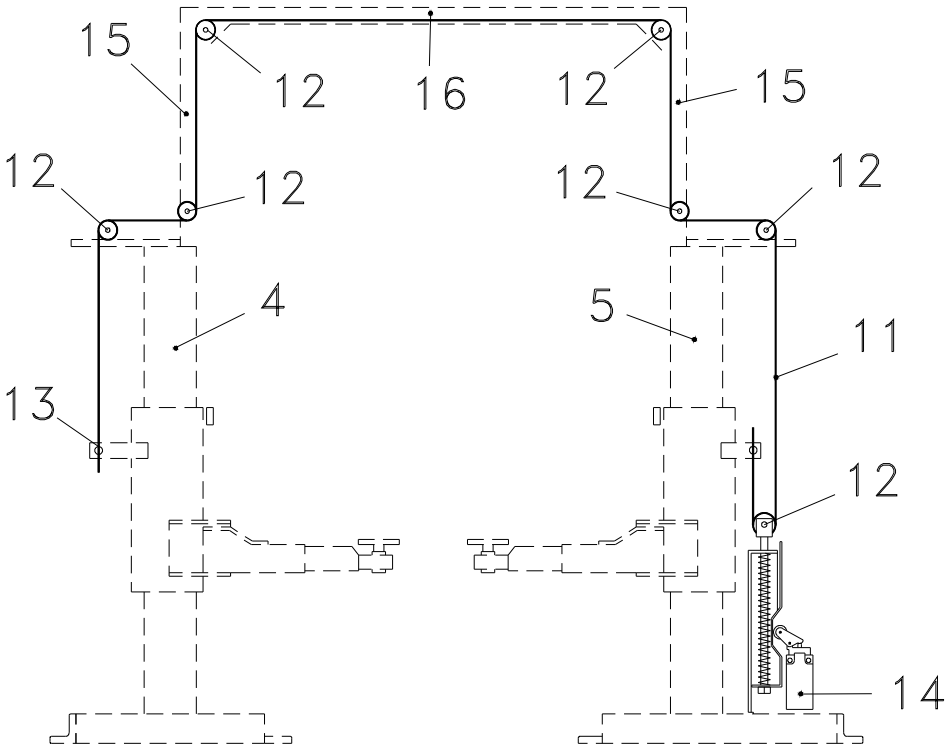
13) Press the lifting button to make the oil flow into the cylinders.
During this operation, only the arm restraint of the control column will lift up.
When it has reached the top, continue to press the lifting button to make the other arm restraint rise up.

ATTENTION! Check that nothing interferes with the movement of the arm restraints.

When the second arm restraint has arrived in the upper position, keep the lifting button pressed for a further 10/15 seconds to complete the filling up of the hydraulic system with oil. Lower the arm restraints until they reach the ground.

14) Effectuate the assembly of the cable (11) that controls the difference in level of the arm restraints. The cable is positioned in the column (5) and must follow the route as shown in fig. **???** passing inside the uprights (15) and the transverse bar (16), utilising the pulleys for the change of direction. Fix the cable to the terminal (13) that is situated inside the column (4) in such a way that the micron-wheel (14) that is located at the centre of the cam is positioned in the lower part of the column (5), as shown in the figure.

Fig. 4 – Cable assembly.



ATTENTION! The vehicle lift automatically stops if there is a difference in level between the arm restraints when the vehicle lift is in the lowering phase during normal functioning. To correctly level the arm restraints again, raise them up to the maximum limit and continue pressing the lifting button for a further 5 seconds. This operation can be effectuated also with a load. It is advisable to effectuate this levelling operation every time the arm restraints are situated in a high position.

12) Slot the arms into the arm restraint housings and fix them with the relative pins.
13) Position a vehicle on the arms of the vehicle lift and effectuate a complete rise and fall test so that the ***INSTALLATION REPORT*** can be compiled.

ATTENTION! When carrying out these operations, check that all union connections and cylinders do not leak.

14) Reassemble the protections (3) and hook the electrical unit (18) to the protection using the predisposed holes.

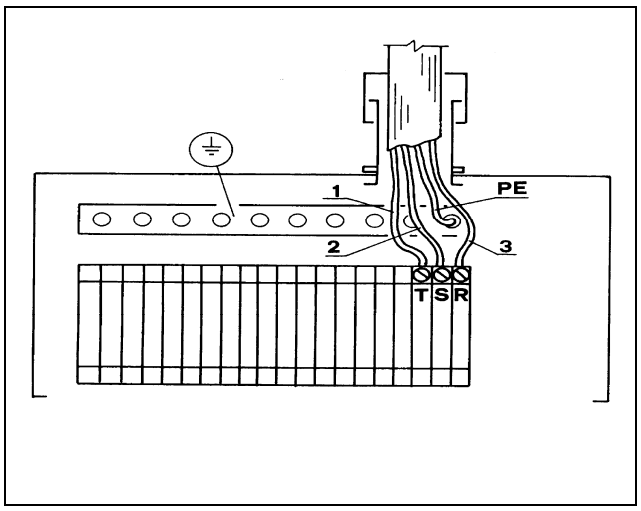
Any damage deriving from the lack of observation of the above-mentioned instructions will not be the responsibility of the manufacturer and could cause the annulment of the guarantee.

ELECTRICAL INSTALLATION

The standard machine is predisposed to work on a three-phase mains voltage of 380V/50Hz. The Client must specifically request a 220V/50Hz voltage rating for the machine if the electrical mains supply is rated at 220V/50Hz in his workshop.
Before connecting the machine to the electrical mains supply, check the voltage on the indication plate of the machine. It is advisable to not connect the machine to the electrical mains supply until the machine has been completely assembled and all connections effectuated.
The electrical installation utilised must comply to the CEI 64.8 (CENELEC HD 384, IEC 364-4-41) standard.
The following protection safety devices must be provided: equipotential earthing system assembled upstream of the machine and automatic circuit breakers that guarantee the interruption of the electrical current in accordance with that foreseen in the previously cited standards.

The connection to the mains supply must be effectuated by a 3 live + 1 earth feed cable with a minimum section of 2.5 sq mm and in the following way:

Fig. 5 – Electrical connection



1. Open the control panel.
2. Pass the feed cable through the cable clamp.
3. Connect the phases of the cable to the T, S, and R terminals (Fig. 5) and the earth lead to the PE equipotential terminal.
4. Check that the mains voltage is the same as the voltage predisposed for the machine.
5. Switch on the mains current.

Press the lifting button. Check that the direction of rotation of the motor is that indicated by the arrow located on the central electrical unit. If the direction of rotation is incorrect, invert the two phases of the feed cable.

The internal electrical diagram of the machine is shown in the "***ELECTRICAL DIAGRAM***" table the internal electrical diagram of the machine. Make an electrical continuity test after having correctly effectuated the connection to the electrical mains circuit.

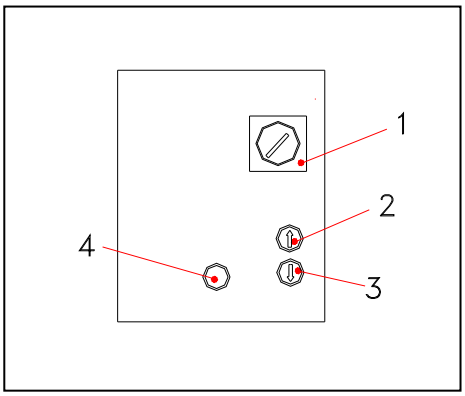
WARNING! Even small interventions on the electrical system require the intervention of professionally qualified personnel. The electrical supply must be protected by a circuit breaker. It is STRICTLY FORBIDDEN to connect the machine directly to the electrical mains supply.

CONTROL UNIT

Fig. 6 - Control unit

The control unit is composed of:

1 Main switch
2 Lifting button
3 Lowering button
4 Hook activation button



It is possible to interrupt the electrical mains supply to the machine at any moment via the main switch IG (5).

USER INSTRUCTIONS

Before using the machine each time, it is necessary to pay attention to all warnings noted in the paragraph "***SAFETY ADVICE***". The vehicle lift must be utilised only by authorised personnel. Please note that any use by persons who are not aware of the specific procedures in this manual could cause danger.

LIFTING:

Main switch (Ref. 5 - Fig. 6) in position 1.
Press the lifting button (Ref. 2 – Fig. 6) until the desired height is reached.

STATIONARY:

Press the lowering button (Ref. 3 – Fig. 6). The position of the platform remains stationary and the platform is automatically stabilised on its hooks.

LOWERING:

Lift the platform 30-40 mm to deactivate the hooks by briefly pressing the lifting button (Ref. 2 – Fig. 6).
Contemporaneously press the hook activation button (Ref. 4 – Fig. 6) and the lowering button (Ref. 3 – Fig. 6) to effectuate the lowering of the lift.

WARNING! Work under the vehicle only when the main switch has been turned to "0" and after the switch has been locked in position and after the machine has been CHECKED to ensure that the machine is stationary on its safety hooks.

Before effectuating a lowering manoeuvre, check that the area underneath the vehicle is free of objects that could obstruct the lowering of the lift.

PROBLEM – CAUSE - REMEDY

PROBLEM	CAUSE	REMEDY
Lift does not function	The main switch is in the "0" position	Turn the main switch to position "1"
	Transformer fuses or mains protection fuses are burnt out	Substitute the burnt out fuses
	There is a fault in the electrical circuit	Check that all connections are efficient
	Check the micro-switch	Check that the micro-switch is positioned in the centre of the cam as shown in Fig. 4 – cable assembly
The lowering manoeuvre is extremely slow	The choke does not function correctly	Clean the choke
	The tubes are obstructed	Clean the tubes
The motor turns correctly but it is not possible to effectuate the lifting manoeuvre or is very slow	The oil solenoid valve is blocked in the open position	Clean the solenoid valve
	The filter is blocked	Clean the filter
	The piston gasket is worn or damaged	Substitute the gasket
	The pump is worn or damaged	Check the efficiency of the pump and substitute if necessary.

OPERATIONAL NOISE LEVEL

The measures carried out conform to the Directive 89/392 Addendum I, paragraph 1.7.4 and measured according to ISO 11202: 1995 standards.
This value is the maximum value detected in the atmosphere with the machine functioning at a fully operational speed:

ACOUSTIC PRESSURE LEVEL: < 73.1 dB(A) > measured at the operator's work position.

SAFETY PROCEDURES

ATTENTION!
The used hydraulic oil must be given to a company authorised to collect used oils in accordance with the standards in force.

Furthermore, utilise the following arrangements during handling:

PREVENTIVE MEASURES
- Avoid the formation and diffusion of nebulized oil spray in the atmosphere.
- Avoid repeated and prolonged contact with the skin.
- Thoroughly wash the hands with soap and water. Do not use irritants or solvents.
- Make sure that work clothing is kept clean.
- Avoid contact of the oil with wounded parts of the body or infected by skin diseases.

PERSONAL PROTECTIVE EQUIPMENT
- Impermeable gloves and apron.
- Protective glasses.

WARNING! Ask your hydraulic oil supplier for the risk sheets on the products used.

Any oil spilt must be collected in the appropriate device and absorbed by adequate aggregates. This operation produces a special waste material which must be disposed of according to the standards in force in the destination country of the machine.

MAINTENANCE

The machine does not require any special maintenance.
The technical solutions, materials utilised and the protective paint have been conceived to reduce maintenance interventions.
It is however advisable to carry out certain ordinary and extraordinary maintenance operations that will guarantee the safety, reliability and efficiency of the machine over a long period of time.

ORDINARY MAINTENANCE:

To be carried out daily at the end of each work period:

- Clean the support surfaces and the support arms.
- Check that the electrical mains supply cable is not cut or worn.
- Check the reliability of the protection safety devices of the electrical circuit.

Periodically carry out the following controls (every three months):

1 - Check the safety of the electrical circuit: cable insulation, circuit breakers and the continuity of the earthing conductor.

2 - Check the blocking mechanisms of the various mechanical components.

3 - Control cable check
Check the control cable for corrosion or fraying; substitute the cable if necessary. **Lubricate the cable with oil**.

4 - Micro-switch position (Ref. fig. 4)
The control micro-switch must be positioned in the centre of the cam. The clamp must be adjusted to correct any variations to this position.

5 - Oil check
Change the oil in the central unit every 100 working hours. Effectuate the oil change with the arms in the lowered position. Effectuate the bleeding of the air and recheck the oil level after two or three lifting operations.

6 - Check the chain (Ref. 78 – page 24)
Lubricate the chain with lubricating oil via the slots so as to avoid abnormal wear. Every week, check the play between the elements of the chain and check the chain for stretching. If necessary, substitute the chain immediately. If one chain is substituted, then the other chain must be substituted as well.

All cleaning operations must be effectuated with the maximum safety.

The maintenance operations mentioned in the following paragraph are considered to be extraordinary and therefore must be carried out by professionally qualified personnel.

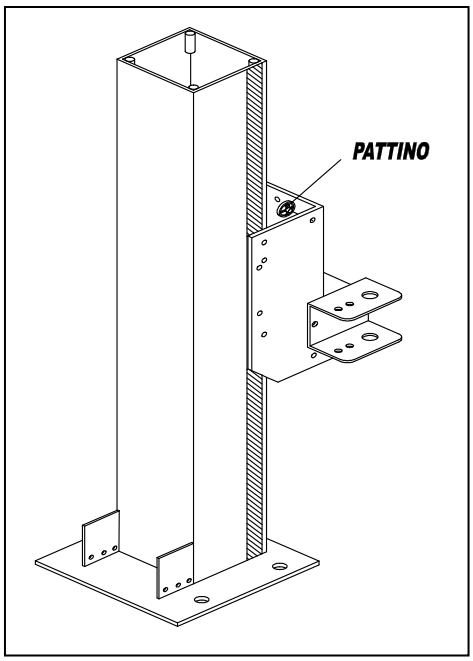
EXTRAORDINARY MAINTENANCE:

1 - Oil solenoid valve
Clean the oil solenoid valve, taking care not to damage the valve during disassembly and reassembly.

ATTENTION! The central hydraulic unit must be removed from its housing and placed on a workbench for the above-mentioned cleaning operation in point 1.

GREASING (EVERY THREE MONTHS)

Fig. 7 – Greasing



Regularly check that the arm restraints slide up and down smoothly for an always correct functioning of the machine. To maintain this smoothness, oil the columns every three months along the *WHOLE* length of the guide wheel travel, as indicated by the *SHADED* part in Fig. 7.
Lubricate the control cable with oil.

DEMOLITION AND DISPOSAL

The machine does not contain substances or components that could be dangerous to the health of man or the environment as it is manufactured from materials that can be completely recycled or normally disposed of.

WARNING!
With regards to demolishing the machine, rely on a specialised company or specially trained personnel who know the possible risks, who are aware of the contents of this manual and can strictly apply them and are correctly informed about the characteristics of the demolition.

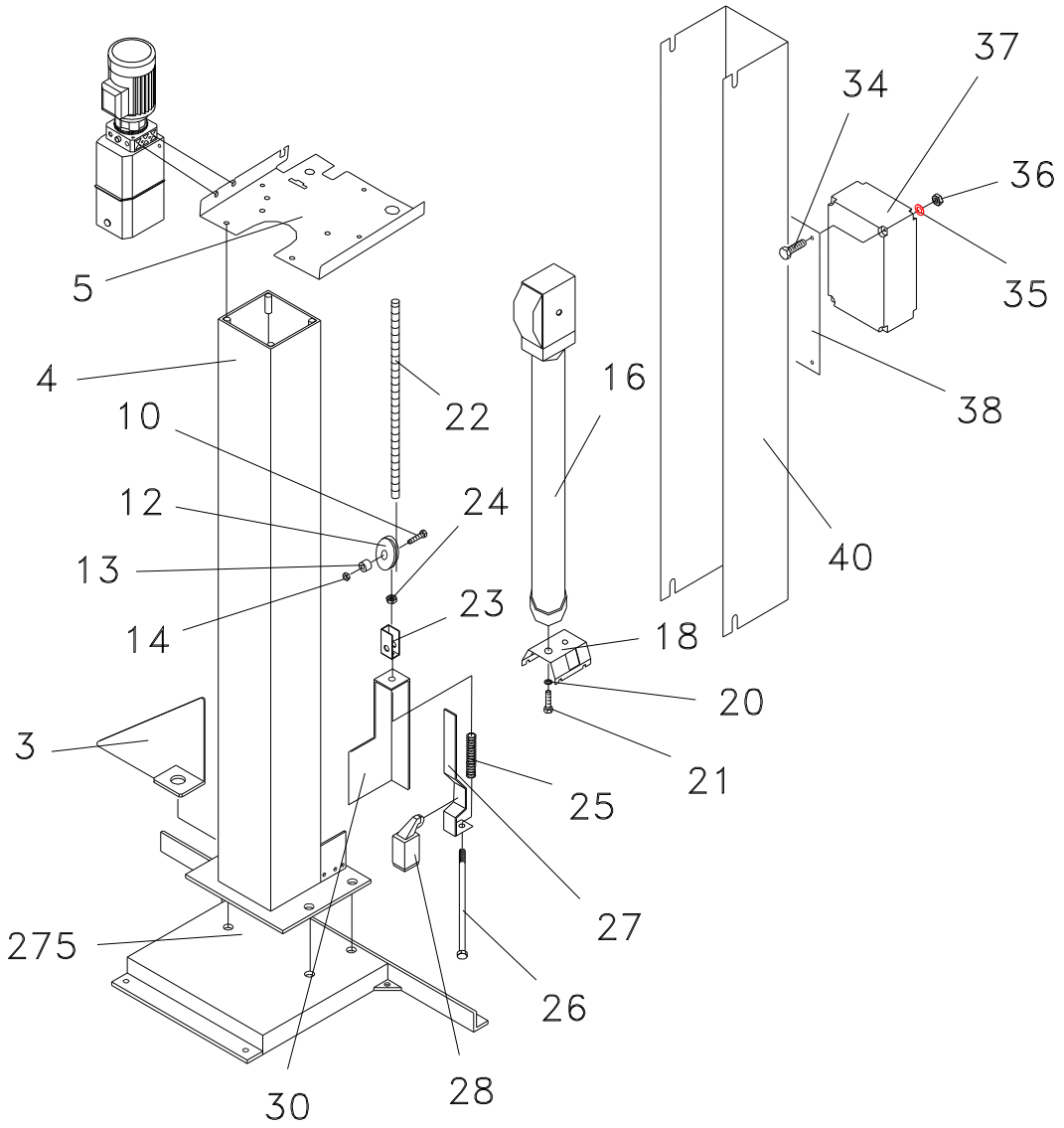
Therefore, when the machine has reached the end of its useful working life, demolition is effectuated taking great care to follow the accident-at-work standards mentioned in this chapter:

- Isolate the machine from its electrical, pneumatic and hydraulic energy sources.
- Drain the hydraulic oil contained in the tank, tubes and in the central hydraulic unit. The oil must be put into sealed containers and delivered to a centre specialised in the disposal of oil in accordance with the standards in force in the country of destination of the machine.
- Remove the electrical cables and deliver them to a collecting centre specialised in their disposal in accordance with the standards in force in the country of destination of the machine.
- Remove the flexible rubber tubing of the central hydraulic unit, the nylon tubing of the pneumatic system, the electric control panel, the flashing signaller and any other components in plastic and deliver them to a collecting centre specialised in their disposal in accordance with the standards in force in the country of destination of the machine.
- After having removed everything mentioned above, deliver the rest of the machine to a company specialised in the disposal of scrap metal, in accordance with the standards in force in the country of destination of the machine.

ATTENTION!
Ensure that each part of the machine is disposed of in accordance with the standards in force in the country of destination of the machine.

SPARE PARTS

TABLE 1 – CONTROL COLUMN

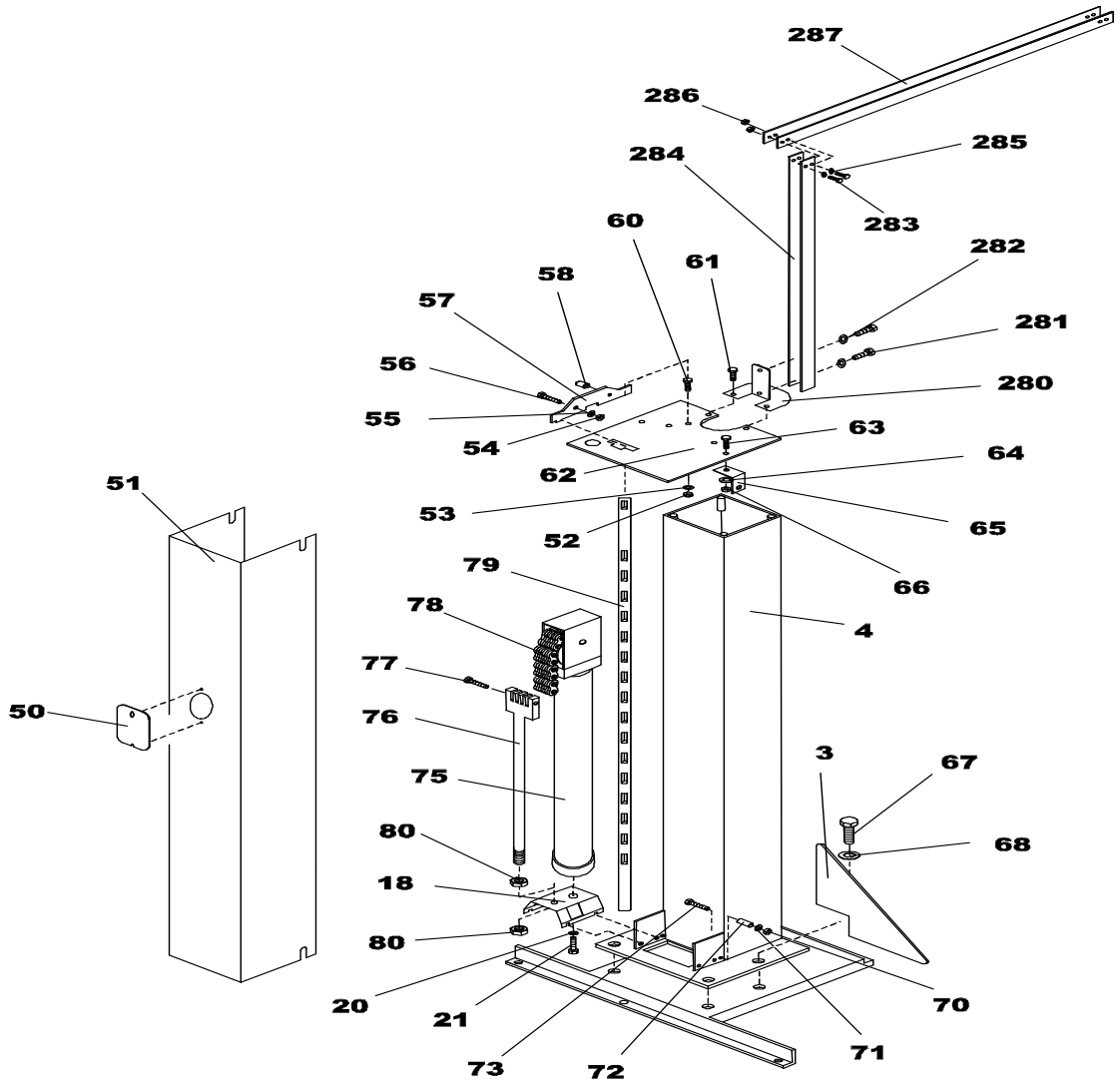


3-63	FOOT PROTECTION GUARD
4-63	COLUMN
5-63	UPPER PLATE
10-63	BOLT
12-63	PULLEY
13-63	SPACER
14-63	NUT
16-63	CYLINDER

18-63	CYLINDER ATTACHMENT
20-63	WASHER
21-63	BOLT
22-63	CABLE GUIDE
23-63	BRAKET
24-63	NUT
25-63	SPRING
26-63	TENSION ROD
27-63	CAM

28-63	MICRO-SWITCH
30-63	PLATE
34-63	BOLT
35-63	WASHER
36-63	NUT
37-63	BOX
38-63	PLATE
40-63	PROTECTION
275-63	BASE

TABLE 2 – COLUMN



3-63	FOOT PROTECTION GUARD
4-63	COLUMN
18-63	CYLINDER ATTACHMENT
20-63	WASHER
21-63	BOLT
50-63	COVER
51-63	PROTECTION
52-63	NUT
53-63	WASHER
54-63	NUT
55-63	WASHER
56-63	BOLT

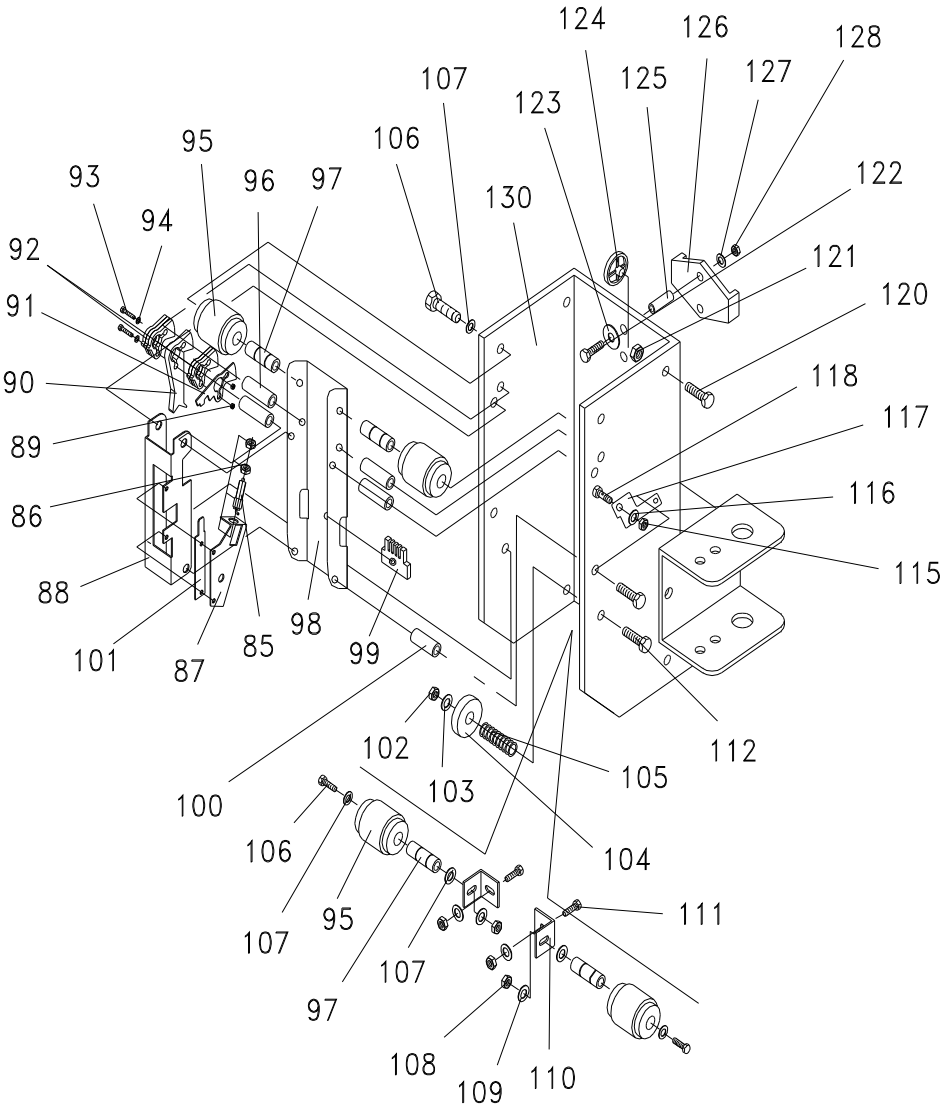
57-63	PLATE
58-63	SPACER
60-63	BOLT
61-63	BOLT
62-63	UPPER PLATE
63-63	BOLT
64-63	WASHER
65-63	BRACKET
66-63	NUT
67-63	BOLT
68-63	WASHER
70-63	NUT
71-63	WASHER

72-63	SPACER
73-63	BOLT
75-63	CYLINDER
76-63	BRACKET
77-63	BOLT
78-63	CHAIN
79-63	PERFORATED ROD
80-63	NUT
280-63	PLATE
281-63	BOLT
282-63	WASHER
283-63	BOLT
284-63	SUPPORT

285-63	WASHER
286-63	NUT

287-63	CROSS BEAM

TABLE 3 – ARM RESTRAINT

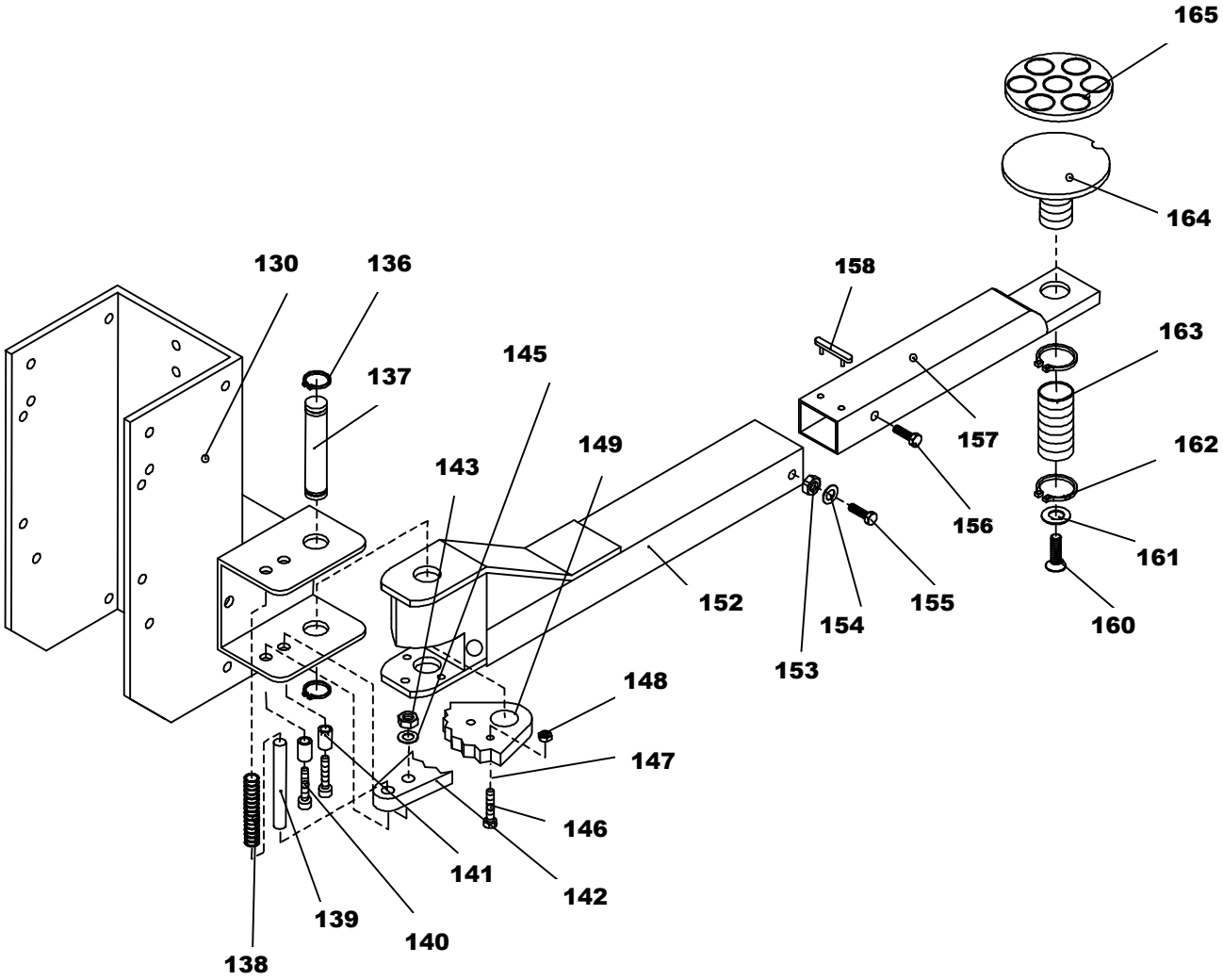


85-63	CYLINDER
86-63	NUT
87-63	BRACKET
88-63	PLATE
89-63	NUT
90-63	HOOK
91-63	SPACER
92-63	BALLAST
93-63	BOLT
94-63	WASHER
95-63	ROLLER
96-63	SPACER
97-63	PIN
98-63	PLATE

99-63	CHAIN ATTACHMENT
100-63	SPACER
101-63	PLATE
102-63	NUT
103-63	WASHER
104-63	WHEEL
105-63	SPRING
106-63	BOLT
107-63	WASHER
108-63	NUT
109-63	WASHER
110-63	BRACKET
111-63	BOLT
112-63	BOLT

115-63	NUT
116-63	WASHER
117-63	BRACKET
118-63	CLAMP
120-63	BOLT
121-63	NUT
122-63	BOLT
123-63	GUIDE WHEEL
124-63	GUIDE WHEEL
125-63	SPACER
126-63	PROTECTION PLATE
127-63	WASHER
128-63	NUT
130-63	ARM RESTRAINT

TABLE 4 – ARM

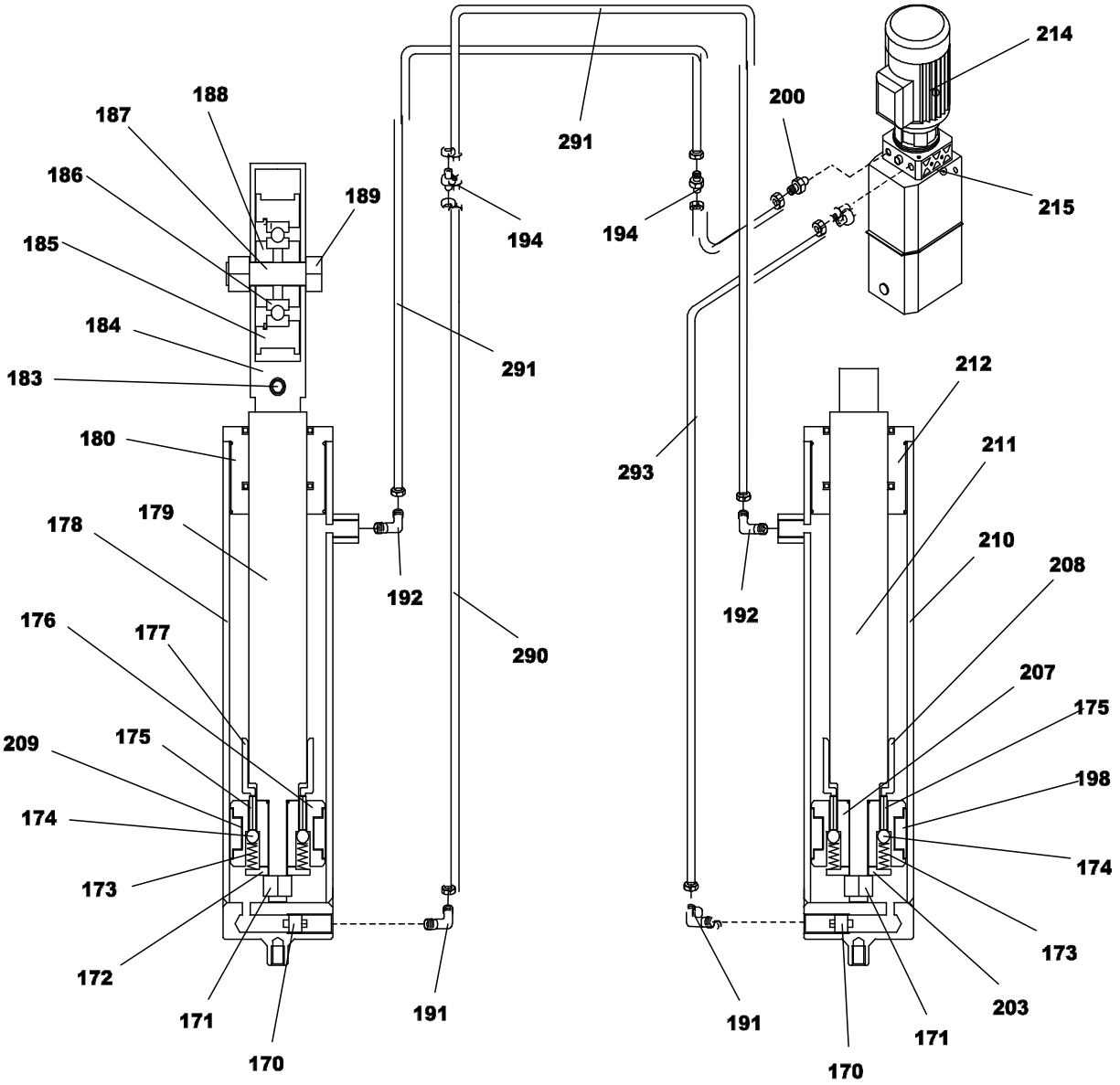


130-63	ARM RESTRAINT
136-63	CIRCLIP
137-63	PIN
138-63	SPRING
139-63	ROD
140-63	BOLT
141-63	SPACER
142-63	SWIVEL BLOCK PLATE
143-63	NUT
145-63	WASHER

146-63	BOLT
147-63	WASHER
148-63	NUT
149-63	SWIVEL BLOCK PLATE
152C-63	SHORT ARM
152L-63	LONG ARM
153-63	NUT
154-63	WASHER
155-63	BOLT
156-63	BOLT

157C-63	SHORT ARM
157L-6	LONG ARM
158-63	GUIDE WHEEL
160-63	BOLT
161-63	WASHER
162-63	CIRCLIP
163-63	BUSH
164-63	BUFFER SUPPORT PLATE
165-63	BUFFER

TABLE 5 – HYDRAULIC CIRCUIT

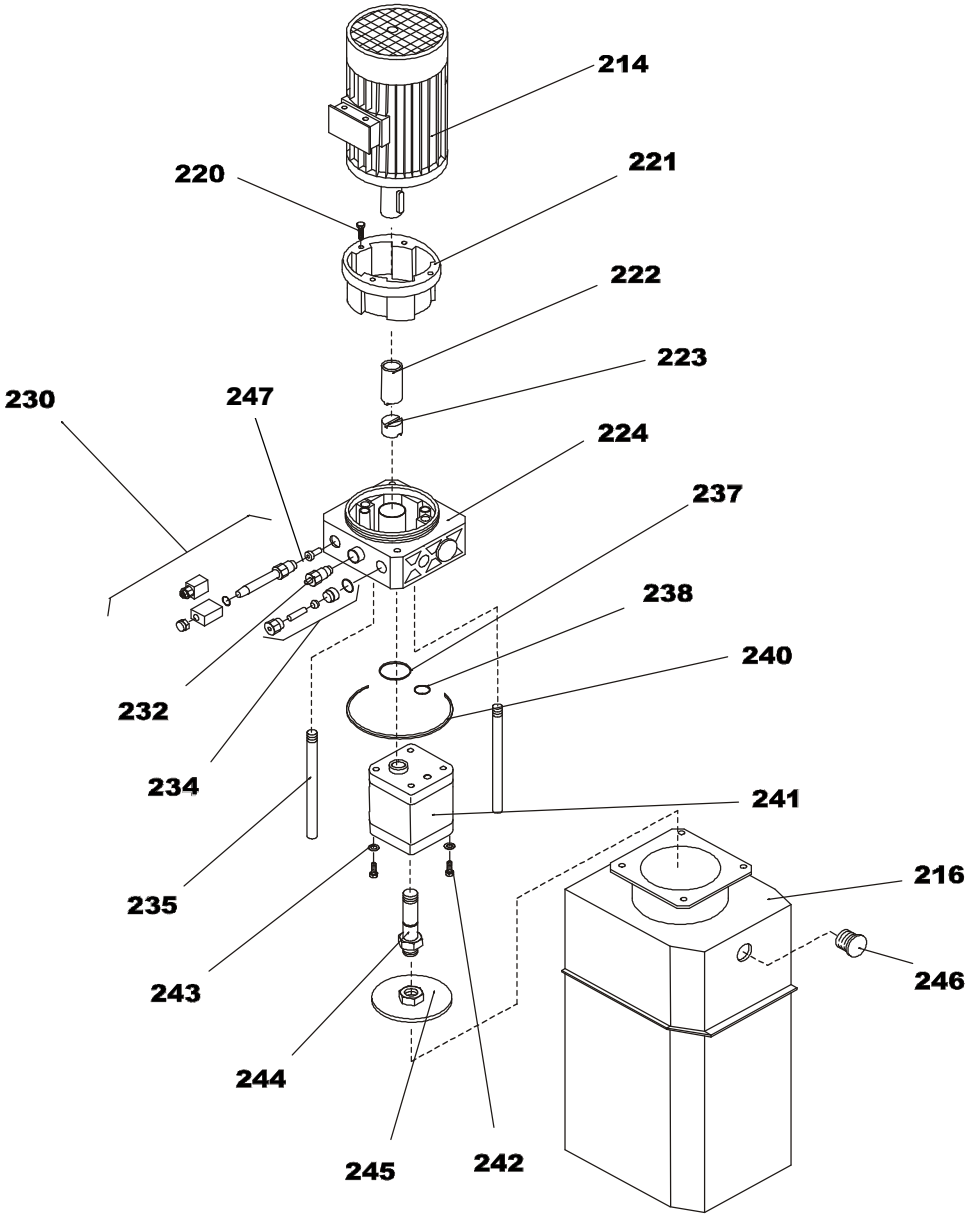


170-63	BLOCKING VALVE
171-63	NUT
172-63	WASHER
173-63	SPRING
174-63	STEEL BALL
175-63	SPACER
176-63	PISTON
177-63	SPACER
178-63	CYLINDER LINER
179-63	ROD
180-63	HEAD
183-63	GRUB SCREW
184-63	BOX

185-63	WHEEL
186-63	BEARING
187-63	BOLT
188-63	SPACER
189-63	NUT
191-63	UNION
192-63	UNION
194-63	UNION
198-63	GASKET KIT
200-63	UNION
203-63	WASHER
207-63	PISTON
208-63	SPACER

209-63	GASKET KIT
210-63	CYLINDER LINER
211-63	ROD
212-63	HEAD
214-63	THREE-PHASE MOTOR
215-63	COMPLETE HYDRAULIC CENTRAL UNIT
290-63	TUBE
291-63	TUBE
292-63	TUBE
293-63	TUBE

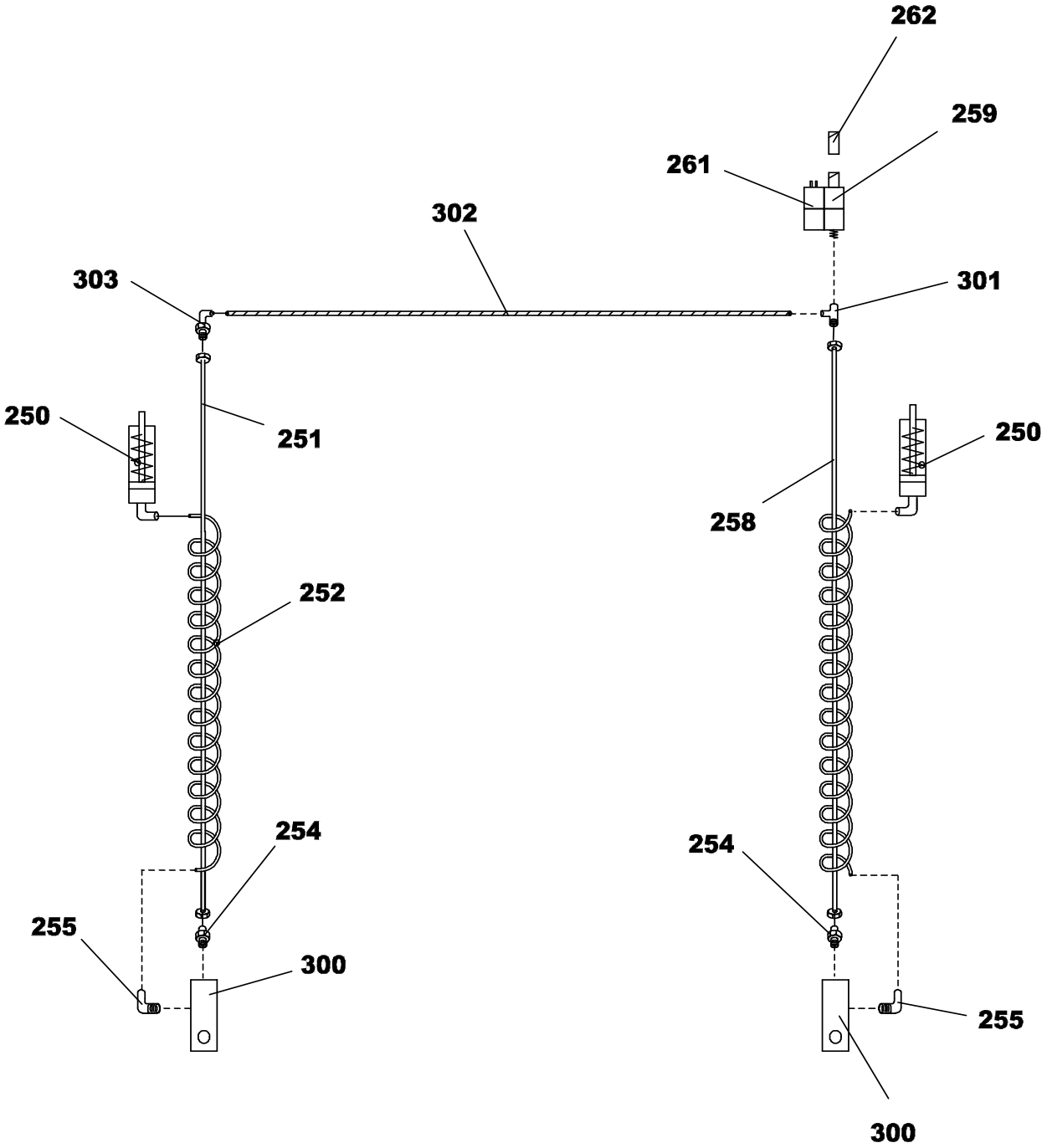
TABLE 6 – HYDRAULIC CENTRAL UNIT



214-63	THREE-PHASE MOTOR
216-63	TANK
220-63	SCREW
221-63	FLANGE
222-63	JOINT
223-63	JOINT
224-63	MANIFOLD
230-63	OIL SOLENOID VALVE
232-63	MAXIMUM PRESSURE VALVE
234-63	NON-RETURN VALVE

235-63	DISCHARGE TUBE
237-63	O-RING
238-63	O-RING
240-63	O-RING
241-63	PUMP
242-63	SCREW
243-63	WASHER
244-63	SUCTION TUBE
245-63	FILTER
246-63	FILLING PLUG
247-63	CHOKE

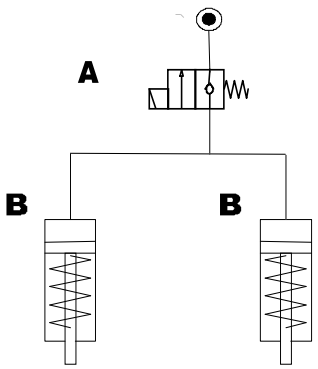
TABLE 7– PNEUMATIC SYSTEM



250-63	PNEUMATIC CYLINDERS
251-63	RIGID TUBE
252-63	SPIRAL COIL
254-63	UNION
255-63	UNION
258-63	TUBE
259-63	AIR SOLENOID VALVE

261-63	COIL
262-63	UNION
300-63	SMALL BLOCK
301-63	UNION
302-63	TUBE
303-63	UNION

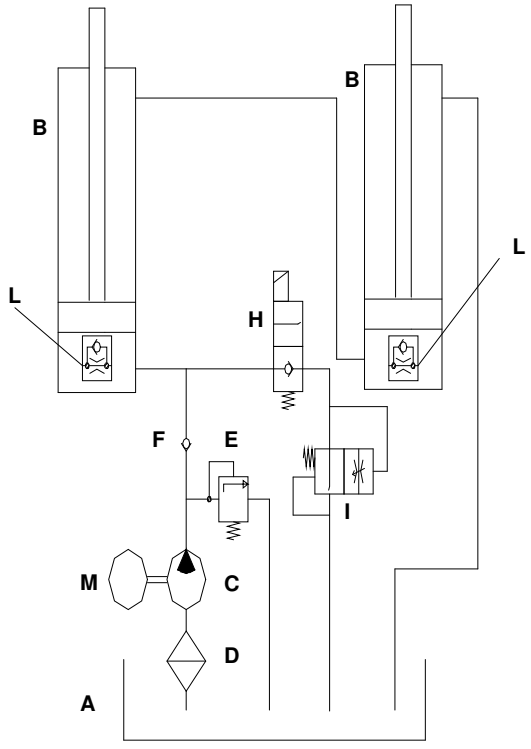
PNEUMATIC DIAGRAM



	DESCRIPTION	REF.
A	SOLENOID VALVE	259-62
B	PNEUMATIC CYLINDERS	250-62

ATTENTION! It is necessary to install a lubricator filter to allow the pneumatic system to function at its best.

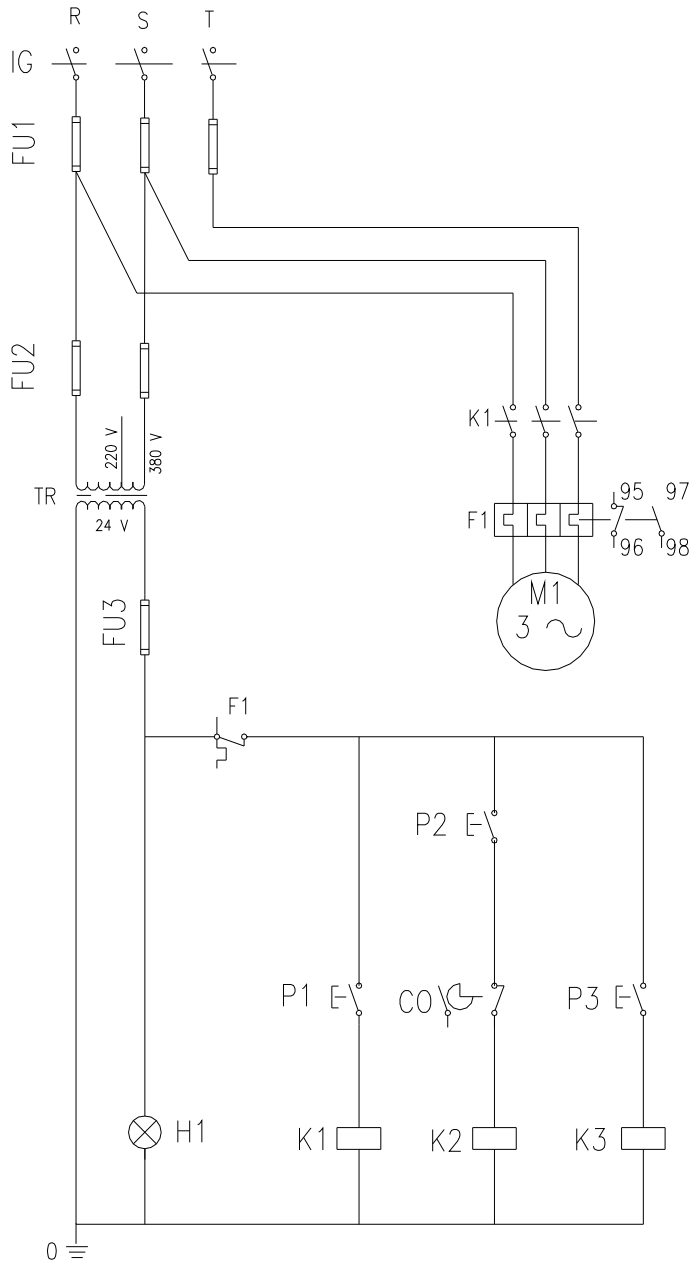
HYDRAULIC DIAGRAM



	DESCRIPTION	REF.
A	TANK	216-61
B	HYDRAULIC CYLINDERS	Table 5
C	PUMP	241-61
D	SUCTION FILTER	245-61
E	MAXIMUM PRESSURE VALVE	232-61
F	NON-RETURN VALVE	234-61
H	OIL SOLENOID VALVE	230-61
I	CHOKE	247-61
L	BLOCKING VALVE	170-61
M	MOTOR	214-61

It is forbidden to tamper with the maximum pressure valve.
Tampering with the maximum pressure valve annuls the guarantee.

THREE-PHASE ELECTRICAL DIAGRAM



REF:	DESCRIPTION
IG – 63	MAIN SWITCH
TR – 63	TRANSFORMER
FU1 – 63	PROTECTION FUSE
CO – 63	CONTROL
K1 – 63	COUNTER
M1 – 63	MOTOR
P1 – 63	LIFTING BUTTON

P2 – 63	LOWERING BUTTON
P3 – 63	HOOK ACTIVATION BUTTON
K2 – 63	OIL SOLENOID VALVE
K3 – 63	AIR SOLENOID VALVE
FU2 – 63	PROTECTION FUSE
FU3 – 63	PROTECTION FUSE
F1 – 63	THERMAL RELAY
H1 – 63	MAINS WARNING LIGHT

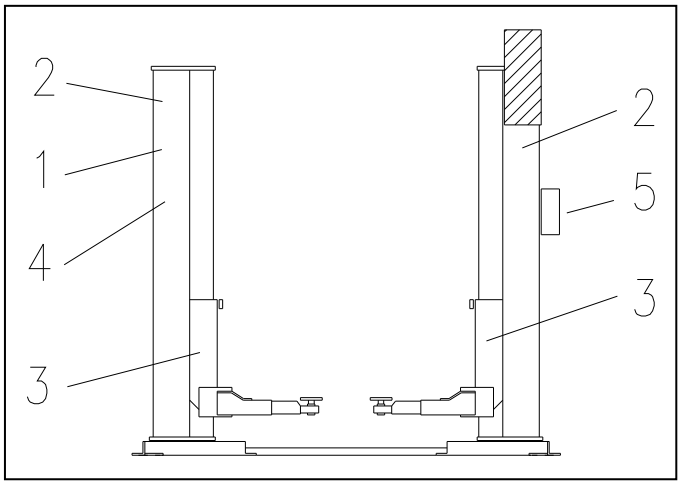
WARNING LABELS

The following adhesive labels are already attached to the vehicle lift as seen in the diagram below.

Removing the labels will automatically annul the guarantee and annul the responsibility of the manufacturer for any damage deriving from the use of the vehicle lift.

In the case of damage, illegibility or the loss of one or more labels located on the machine, request the positioning number necessary for the substitution and position the new label in the position indicated below.

63



NR.	DESCRIPTION
1	Technical characteristics and registration number
2	Maximum load capacity
3a	Attention! Suspended loads!
3b	Attention! Danger of being crushed!
3c	It is forbidden to climb onto the arms of the lift
4	Warning! Electricity – danger!

CE CONFORMITY DECLARATION

TERMOMECCANICAGL SRL

Via L. Giangolini 1 fraz. Feline 42035 Castelnovo ne' Monti (RE) Italy

WE HEREBY DECLARE THAT THE MACHINERY KNOWN AS:
TWO-COLUMN ELECTRO-HYDRAULIC VEHICLE LIFT

Model ***63***

SERIAL No. ……..... YEAR OF MANUFACTURE ……..

TO WHICH THIS DECLARATION REFERS, IS IN CONFORMITY WITH THE FOLLOWING DISPOSITIONS:

- Directive **EC 2006/42** (Machinery Safety)
- Directive **EC 2004/108** as amended (Electromagnetic Compatibility)
- Directive **EC 2006/95** as amended (Low Voltage)

For the design and manufacture of the above equipment the following standards and specifications have been applied:

- **UNI EN-ISO 12100: 2010** – Safety of machines – General design principles – Risk assessment and risk reduction.
- **UNI EN 1493: 2010** – Vehicle lifts.
- **CEI EN 60204-1: 2010** – Safety of machinery – Electrical equipment of machines.
- **CEI EN 61000-6-4: 2007** – Electromagnetic compatibility. Generic emission standards.
- **CEI EN 61000-6-2: 2006** – Electromagnetic compatibility. Generic immunity standard.
- **UNI EN ISO 4413: 2012** – Safety of machinery – Safety requirements for fluid power systems and their components – Hydraulic standards.
- **UNI EN ISO 4414: 2012** – Safety of machinery – Safety requirements for fluid power systems and their components – Pneumatic standards.

We hereby further declare that the person authorised to compose the technical dossier is:
TERMOMECCANICAGL Via L. Giangolini 1 fraz. Feline 42035 Castelnovo ne' Monti (RE) Italy

Italy

TERMOMECCANICA GL SRL

Felina ……

(date) (Legal Representative)